APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,777	01/27/2004	Craig William Fellenstein	AUS920030962US1	2482

46239   7590   09/01/2009

IBM Corporation (PEC)
c/o Patrick E. Caldwell, Esq.
The Caldwell Firm, LLC
PO Box 59655
DALLAS, TX 75229-0655

EXAMINER
AHLUWALIA, NAVNEET K

ART UNIT	PAPER NUMBER
2166	

MAIL DATE	DELIVERY MODE
09/01/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/765,777
Filing Date: January 27, 2004
Appellant(s): FELLENSTEIN ET AL.

_____

Patrick E. Caldwell, Esq.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 04/21/2009 appealing from the Office action

mailed 10/06/2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US 6,757,804 B2	Jochemsen et al.	06-2004
US 2003/0101383 A1	Barry L. Carlson	05-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1, 3 – 5, 7, 8, 10, 11 and 13 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Jochemsen et al. ('Jochemsen' herein after) (US 6,757,804 B2)

further in view of Barry L. Carlson ('Carlson' herein after) (US 2003/0101383 A1).

With respect to claim 1,

        Jochemsen discloses an apparatus for file defragmentation of at least one

storage medium, comprising:

- a computer system at least coupled to the at least one storage medium
  (column 1 lines 11 - 25, Jochemsen);

- a tracker, wherein the tracker is at least configured to maintain a record of at
  least locations of a plurality of file fragments on at least one storage medium
  (column 1 lines 49 – 58 and column 2 lines 51 – 58, Jochemsen); and

- an agent, wherein the agent is at least: configured to operate while the
  computer system is at least idle (column 2 lines 58 – 67, Jochemsen);
  configured to defragment the plurality of file fragments (column 2 lines 1 – 10,
  Jochemsen); modify attributes of defragmentation (column 3 lines 37 – 46,
  Jochemsen). and configured to delete the record of at least locations of the
  plurality of file fragments (column 2 lines 58 – 67 and column 3 lines 23 – 45,
  Jochemsen).

Jochemsen does not explicitly disclose as it is silent about the system operating
when idle.

Carlson however teaches the system working at all times and explicitly discloses
about the idle system (paragraphs 26 – 27, Carlson).

It would have been obvious to one of ordinary skill in the art of data processing at
the time of the present invention to combine the teachings of cited references because
both the inventions are directed in the same field of study namely, maintenance of
storage and memory and fragmentation. The explicit disclosure in Carlson of the
fragmentation occurring even when system is idle enhances the productivity and
execution of the system (paragraphs 26 – 27, Carlson).

With respect to claim 3,

Jochemsen discloses the apparatus of claim 1, wherein the attributes are

selected from the group consisting of file type, frequency of access, typical access

duration, interval between accesses, file/application association, file size, read

attributes, update attributes, and time of day of typical access (column 4 lines 22 – 226

and 42 – 47, Jochemsen).

With respect to claim 4,

Jochemsen discloses the apparatus of claim 1 further comprising:

- a memory, wherein the memory is at least configured to store locations of a
  plurality of file fragments (column 1 lines 49 – 58 and column 2 lines 51 – 58,
  Jochemsen);

- a system monitor, wherein the system monitor at least determines if file
  fragmentation occurs when data is written to, deleted from, or scanned from
  the at least one storage medium (column 2 lines 58 – 67, Jochemsen); and

- an accounting means, wherein the accounting means is at least configured to
  store locations of a plurality of file fragments when the system monitor has at
  least determined that file fragmentation has occurred (column 3 lines 23 – 45,
  Jochemsen).

With respect to claim 5,

Jochemsen discloses an apparatus for file defragmentation of at least one
storage medium at least coupled to a computer system, comprising:

- a memory, wherein the memory is at least configured to store locations of a
  plurality of file fragments (column 1 lines 49 – 58 and column 2 lines 51 – 58,
  Jochemsen);

- an idle monitor, wherein the idle monitor is at least configured to enable
  defragmentation while the computer system is at least idle (column 2 lines 58
  – 67, Jochemsen);

- a defragmenter, wherein the defragmenter is at least configured to
  defragment the plurality of file fragments (column 1 lines 49 – 53,
  Jochemsen); and

- an update monitor, wherein the update monitor is at least configured to delete
  a record in the memory of at least locations of the plurality of file fragments
  that at least been defragmented (column 3 lines 23 – 45, Jochemsen)

- ability to modify attributes of defragmentation (column 3 lines 37 – 46,
  Jochemsen)..

Jochemsen does not explicitly disclose as it is silent about the system operating
when idle.

Carlson however teaches the system working at all times and explicitly discloses
about the idle system (paragraphs 26 – 27, Carlson).

It would have been obvious to one of ordinary skill in the art of data processing at
the time of the present invention to combine the teachings of cited references because

both the inventions are directed in the same field of study namely, maintenance of storage and memory and fragmentation. The explicit disclosure in Carlson of the fragmentation occurring even when system is idle enhances the productivity and execution of the system (paragraphs 26 – 27, Carlson).

With respect to claim 7,

Jochemsen discloses the apparatus of claim 5, wherein the attributes are selected from the group consisting of file type, frequency of access, typical access duration, interval between accesses, file/application association, file size, read attributes, update attributes, and time of day of typical access (column 4 lines 22 – 226 and 42 – 47, Jochemsen).

With respect to claim 8,

Jochemsen discloses a method of for file defragmentation of at least one storage medium coupled to a computer system, comprising:

- determining if fragmentation occurs when data is written to, deleted from, or scanned from the at least one storage media (column 1 lines 49 – 58, Jochemsen); storing locations of a plurality of file fragments when the system monitor has at least determined that file fragmentation has occurred in a storage medium (column 1 lines 49 – 58 and column 2 lines 51 – 58, Jochemsen);

- determining if the computer system is idle if the computer system is not idle,
  sleeping for an interval (column 1 lines 49 – 58, Jochemsen); if the computer
  system is idle, defragmenting a file (column 2 lines 58 – 67, Jochemsen);

- determining if defragmentation is complete if defragmentation is complete,
  deleting the location of the fragmented file clusters in the storage medium
  (column 1 lines 49 – 53, Jochemsen); if defragmentation is not complete,
  determining if defragmentation is stopped by activity (column 3 lines 22 – 34,
  Jochemsen); if defragmentation is stopped by activity, sleeping for an interval
  (column 2 lines 1 – 10, Jochemsen); and if defragmentation is not stopped by
  activity, reporting an error (column 3 lines 23 – 45, Jochemsen).

Jochemsen does not explicitly disclose as it is silent about the system operating
when idle.

Carlson however teaches the system working at all times and explicitly discloses
about the idle system (paragraphs 26 – 27, Carlson).

It would have been obvious to one of ordinary skill in the art of data processing at
the time of the present invention to combine the teachings of cited references because
both the inventions are directed in the same field of study namely, maintenance of
storage and memory and fragmentation. The explicit disclosure in Carlson of the
fragmentation occurring even when system is idle enhances the productivity and
execution of the system (paragraphs 26 – 27, Carlson).

With respect to claim 10,

Jochemsen discloses a method of defragmenting at least one storage medium coupled to a computer system, comprising:

- determining if the computer system is idle if the computer system is not idle, sleeping for an interval (column 2 lines 1 – 10, Jochemsen); if the computer system is idle, defragmenting the file (column 2 lines 58 – 67, Jochemsen);

- determining if defragmentation is complete if defragmentation is complete, deleting a location of the fragmented file clusters in a storage medium (column 1 lines 49 – 53, Jochemsen); if defragmentation is not complete, determining if stopped by activity (column 3 lines 22 – 34, Jochemsen); if defragmentation is stopped by activity, sleeping for an interval (column 2 lines 1 – 10, Jochemsen); and if defragmentation is not stopped by activity, reporting an error (column 3 lines 23 – 45, Jochemsen).

Jochemsen does not explicitly disclose as it is silent about the system operating when idle.

Carlson however teaches the system working at all times and explicitly discloses about the idle system (paragraphs 26 – 27, Carlson).

It would have been obvious to one of ordinary skill in the art of data processing at the time of the present invention to combine the teachings of cited references because both the inventions are directed in the same field of study namely, maintenance of storage and memory and fragmentation. The explicit disclosure in Carlson of the fragmentation occurring even when system is idle enhances the productivity and execution of the system (paragraphs 26 – 27, Carlson).

With respect to claim 11,

Jochemsen discloses a computer program product for file defragmentation of at least one storage medium at least coupled to a computer system, the computer program product having a medium embodied thereon, the computer program comprising:

- computer code for determining if fragmentation occurs when data is written to, deleted from, or scanned from the at least one storage media (column 1 lines 49 – 58, Jochemsen); computer code for storing locations of a plurality of file fragments when the system monitor has at least determined that file fragmentation has occurred in a storage medium (column 1 lines 49 – 58 and column 2 lines 51 – 58, Jochemsen);

- computer code for determining if the computer system is idle, if the computer system is not idle, computer code for sleeping for an interval (column 2 lines 1 – 10, Jochemsen); if the computer system is idle, computer code for defragmenting a file (column 2 lines 58 – 67, Jochemsen); computer code for determining if defragmentation is complete; if defragmentation is complete, computer code for deleting the location of the fragmented file clusters in the storage medium (column 1 lines 49 – 53, Jochemsen); if defragmentation is not complete, computer code for determining if defragmentation is stopped by activity (column 3 lines 22 – 34, Jochemsen); if defragmentation is stopped by activity, computer code for sleeping for an interval (column 2 lines 1 – 10,

Jochemsen); and if defragmentation is not stopped by activity, computer code

for reporting an error (column 3 lines 23 – 45, Jochemsen).

Jochemsen does not explicitly disclose as it is silent about the system operating

when idle.

Carlson however teaches the system working at all times and explicitly discloses

about the idle system (paragraphs 26 – 27, Carlson).

It would have been obvious to one of ordinary skill in the art of data processing at

the time of the present invention to combine the teachings of cited references because

both the inventions are directed in the same field of study namely, maintenance of

storage and memory and fragmentation. The explicit disclosure in Carlson of the

fragmentation occurring even when system is idle enhances the productivity and

execution of the system (paragraphs 26 – 27, Carlson).

With respect to claim 13,

Jochemsen discloses a computer program product for defragmenting at least one

storage medium coupled to a computer system, the computer program product having a

medium embodied thereon, the computer program comprising:

- computer code for determining if the computer system is idle, if the computer

    system is not idle, computer code for sleeping for an interval (column 1 lines

    49 – 58, Jochemsen); if the computer system is idle, computer code for

    defragmenting a file (column 2 lines 58 – 67, Jochemsen);

- computer code for determining if defragmentation is complete, if

    defragmentation is complete, computer code for deleting a location of the

    fragmented file clusters in a storage medium (column 1 lines 49 – 53,

    Jochemsen); if defragmentation is not complete, computer code for

    determining if stopped by activity (column 3 lines 22 – 34, Jochemsen); if

    defragmentation is stopped by activity, computer code for sleeping for an

    interval (column 2 lines 1 – 10, Jochemsen); and if defragmentation is not

    stopped by activity, computer code for reporting an error (column 3 lines 23 –

    45, Jochemsen).

Jochemsen does not explicitly disclose as it is silent about the system operating
when idle.

Carlson however teaches the system working at all times and explicitly discloses
about the idle system (paragraphs 26 – 27, Carlson).

It would have been obvious to one of ordinary skill in the art of data processing at
the time of the present invention to combine the teachings of cited references because
both the inventions are directed in the same field of study namely, maintenance of
storage and memory and fragmentation. The explicit disclosure in Carlson of the
fragmentation occurring even when system is idle enhances the productivity and
execution of the system (paragraphs 26 – 27, Carlson).

(10) Response to Arguments

Appellant argues that examiner has failed to establish a prima facie case of obviousness.

Examiner submits that it would have been obvious to one of ordinary skill in the art of data processing at the time of the present invention to combine the teachings of cited references because both the inventions are directed in the same field of study namely, maintenance of storage and memory and fragmentation. Furthermore, the explicit disclosure in Carlson of the fragmentation occurring even when system is idle enhances the productivity and execution of the system (paragraphs 26 – 27, Carlson). Also in paragraphs 22 and 24 Carlson improves on performance of the system by running maintenance and analysis in the background and on detecting periods of little or no file activity (equivalent to period of being idle) and performs bits and pieces of the file maintenance and in doing so Carlson improves on Jochemsen's system by improving the performance of the file subsystem through continual, albeit sporadic maintenance. Thus a prima fie case has been established in view of the mentioned reasoning and citations.

Appellant argues that Jochemsen and Carlson fail to teach/suggest the determination if the computer system is idle.

Examiner submits that the instant application is rejected by the combination of Jochemsen and Carlson, even though Jochemsen discloses in detail about fragmentation and defragmentation it does not go into disclosure of determination of the computer system being idle, however Carlson teaches in amongst its file maintenance

running a real time file analysis, determination of low activity periods of time which is

equivalent of determination of whether the computer system is idle or inactive. This is

disclosed in Carlson in paragraphs 22, 24 and 26 – 27. More specific and detailed

disclosure is in paragraphs 22 and 24 of Carlson.

Appellant argues that Jochemsen and Carlson fail to teach/suggest the

determination if defragmentation is complete and deleting the location of fragmented file

clusters.

Examiner submits that the instant application is rejected by the combination of

Jochemsen and Carlson, Jochemsen discloses in detail about fragmentation and

defragmentation especially in column 1 lines 40 – 48, 58 – 67 and column 2 lines 1 – 7

and 51 – 67 where Jochemsen teaches the deletion of the fragmented file and in doing

so creating space for a new file to be saved. Furthermore, the identification of which file

is to be deleted is made with the help of the annotation marking it for deletion.

Appellant argues that Jochemsen and Carlson fail to teach/suggest the

determination if defragmentation is stopped by activity.

Examiner submits that the instant application is rejected by the combination of

Jochemsen and Carlson, even though Jochemsen discloses in detail about

fragmentation and defragmentation it does not go into disclosure of determination of the

computer system being idle, however Carlson teaches in amongst its file maintenance

running a real time file analysis, determination of low activity periods of time which is

equivalent of determination of whether the computer system is idle or inactive. This is disclosed in Carlson in paragraphs 22, 24 and 26 – 27. More specific and detailed disclosure is in paragraphs 22 and 24 of Carlson. Furthermore, Carlson in the same paragraphs teaches that when the period of activity picks up then the defragmentation/ maintenance stops till the next spurt of period of low or no computer activity. Also paragraph 37 of Carlson discloses how the user can intervene at different stages of the maintenance and running of the system.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Navneet K Ahluwalia

AU 2166

Conferees:

Hosain Alam

/Hosain T Alam/

Supervisory Patent Examiner, Art Unit 2166

/Khanh B. Pham/

Primary Examiner

AU 2166